FACT SHEET

WPED PRETREATMENT PERMIT REISSUANCE

APPLICANT	*FRITO-LAY, INC.*
PERMIT NO.	*SP0000071*
APPLICATION NO.	*200900598*
DATE APPLICATION RECEIVED	*February 27, 2009*
FACILITY ID.	*069-054*
LOCATION ADDRESS	*1886 Upper Maple Street, Dayville (Killingly), CT*
FACILITY CONTACT	*Paul Safin, (860) 412-1101* *paul.safin@pepsico.com*
MAILING ADDRESS	*1886 Upper Maple Street, Dayville, CT 06241*
DMR CONTACT	*Paul Safin*
PERMIT TERM	*5 Years*
PERMIT CATEGORY	*Pretreatment Significant Industrial User (SIU)*
SIC CODES	*2096 (Potato Chips, Corn Chips, and Similar Snacks)* *7538 (General Automotive Repair Shop)*
PERMIT TYPE	*Reissuance*
OWNERSHIP	*Private*
POTW THAT RECEIVES THE DISCHARGE	*Discharge to the Town of Killingly POTW via its collection system*
DEEP STAFF ENGINEER	*Ewa Wozniak*
TENTATIVE DECISION FACT SHEET DATE	*January 21, 2016* *When preparing a final version of this, change the language to DATE FACT SHEET PREPARED FOR PERMIT ISSUANCE*

PERMIT FEES

***Application Filing Fee**: $1,050.00*

DISCHARGE CODE	WASTEWATER CATEGORY (per 22a-430-7)	MAXIMUM GPD or CATEGORY	DSN	ANNUAL FEE (per 22a-430-7)
501038Z	Miscellaneous Food Products Wastewater	1,600,000 gpd	001-1	$8,425.00
502000a	Non-Contact Cooling Water	<100,000 gpd	001-1	$660.00
501032X	Laboratory Wastewater	<5,000 gpd	001-1	$660.00
TOTAL				**$9,745.00**

I. APPLICANT

FRITO-LAY, INC. ("FRITO-LAY") in Dayville is seeking to renew its SPDES permit (Permit No. SP0000071 issued on August 26, 2004) for authorization of the discharge of treated wastewater associated with its production of salty snack foods. On February 27, 2009, what was then the Department of Environmental Protection ("Department") received an application (Application No. 200900598) for the subject SPDES permit renewal. This application was noticed in the Norwich Bulletin on March 5, 2009. On April 3, 2009, the Department determined this application to be timely and administratively sufficient.

NATURE OF THE BUSINESS GENERATING THE DISCHARGE

The applicant seeks authorization for the following:

DSN	AVERAGE MONTHLY FLOW (gpd)	MAXIMUM DAILY FLOW (gpd)	WASTESTREAMS	TREATMENT TYPE	DISCHARGE TO
001-1	1,400,000	1,600,000	Process wastewaters consistimg of food processing wastewater, contaminated stormwater, process cooling water, non-contact cooling water from high pressure condensate pump seal, deaerator sample cooling water, intermittent blowdown (quench), conductivity probe cleaning wastewater, generator condensate, quality control laboratory wastewater.	solids screening, clarification, final neutralization	Killingly POTW
001-A	-----	-----	Combined oily wastewater from potato and corn processing	oil and grease removal	DSN 001-1

II. RECEIVING BODY INFORMATION

FOR SEWER DISCHARGES

Discharge to the Town of Killingly POTW via its collection system.

III. BACKGROUND/PERMIT HISTORY

Compliance/Enforcement

Is the Permittee subject to an ongoing enforcement action? ☑ Yes ☐ No

On January 7, 2011, the Department's Water Permitting and Enforcement Division ("WPED") issued to FRITO-LAY a Notice of Violation (NOVWRIN11001) requesting the company to investigate its possible contribution to foaming problems at the Killingly POTW. Currently, the enforcement action is still open.

On September 11, 2013, WPED issued to FRITO-LAY a Notice of Violation (NOVWRIN13016) in response to the company's failure to operate and maintain the wastewater treatment alarm system as required by section 22a-430-3(f) of the Regulations of Connecticut State Agencies ("RCSA"), failure to adequately notify the director of WPED of multiple violations of the DSN 001-1 effluent pH limits and failure to notify the director of a failure or malfunction of the continuous pH monitoring system (probe and meter) for DSN 001-1. Notice of Violation (NOVWRIN13016), issued on September 11, 2013, was closed on May 30, 2014.

In addition, on February 7, 2013, October 3, 2013, March 21, 2014, and March 21, 2014 the Department's Air Bureau issued to FRITO-LAY four Notices of Violations ((NOV 17053), (NOV 17127), (NOV 17174), and (NOV 17180) respectively.) Currently, these enforcement actions are still open.

On the days of September 4th and 5th, 2014, FRITO-LAY discharged between 250,000 – 300,000 gallons of untreated process wastewater into the sanitary sewer system, completely bypassing its treatment system, due to a power outage at the facility.

On December 17, 2014, WPED issued to FRITO-LAY a Notice of Violation (NOVWRIN14022) in response to the company's failure to operate and maintain the controlling pH meter for first stage pH adjustment ("rough tank meter") and the final pH meter for DSN 001-1. Notice of Violation (NOVWRIN14022), issued on December 17, 2014, was closed on October 23, 2015.

Does the Permit contain a compliance schedule? ☐ Yes ☑ No

If yes, please check all that apply.

☐ Pollution Prevention ☐ Water Conservation ☐ Remediation

☐ Water Quality Requirement ☐ Treatment Requirement ☐ Other

Effluent Violations (Provide a violations history for the past 5 years).

MONTH/YEAR	DSN	PARAMETER	TYPE OF LIMIT	PERMITTED LIMIT	EXCEEDENCE
April 2009	001-A	Total Suspended Solids	Maximum, Daily	6,500.00 lb/d	7,166.00 lb/d
REASON: ☐ **Equipment Related** ☐ **Operator Error** ☒ **Unknown** ☐ **None provided** ☐ **Other**					
REASON: Unknown.					

MONTH/YEAR	DSN	PARAMETER	TYPE OF LIMIT	PERMITTED LIMIT	EXCEEDENCE
March 2010	001-1	pH	Maximum Instantaneous	11.0 S.U.	11.2 S.U.
REASON: ☒ **Equipment Related** ☐ **Operator Error** ☐ **Unknown** ☐ **None provided** ☐ **Other**					
REASON: Due to breakdown of the sulfuric acid pump at the pH adjustment building.					

MONTH/YEAR	DSN	PARAMETER	TYPE OF LIMIT	PERMITTED LIMIT	EXCEEDENCE
July 2010	001-A	Total Oil & Grease	Maximum, Daily	100.0 mg/l	121.0 mg/l
REASON: ☐ **Equipment Related** ☐ **Operator Error** ☒ **Unknown** ☐ **None provided** ☐ **Other**					
REASON: Unknown.					

MONTH/YEAR	DSN	PARAMETER	TYPE OF LIMIT	PERMITTED LIMIT	EXCEEDENCE
January 2011	001-1	pH	Maximum Instantaneous	11.0 S.U.	11.2 S.U.
REASON: ☐ **Equipment Related** ☐ **Operator Error** ☐ **Unknown** ☐ **None provided** ☒ **Other**					
REASON: Spike in alkalinity.					

MONTH/YEAR	DSN	PARAMETER	TYPE OF LIMIT	PERMITTED LIMIT	EXCEEDENCE
March 2011	001-A	Total Oil & Grease	Maximum, Daily	100.0 mg/l	202.0 mg/l
REASON: ☐ **Equipment Related** ☐ **Operator Error** ☒ **Unknown** ☐ **None provided** ☐ **Other**					
REASON: Unknown.					

MONTH/YEAR	DSN	PARAMETER	TYPE OF LIMIT	PERMITTED LIMIT	EXCEEDENCE
April 2011	001-A	Total Oil & Grease	Maximum, Daily	100.0 mg/l	134.0 mg/l
REASON: ☐ **Equipment Related** ☐ **Operator Error** ☒ **Unknown** ☐ **None provided** ☐ **Other**					
REASON: Unknown.					

MONTH/YEAR	DSN	PARAMETER	TYPE OF LIMIT	PERMITTED LIMIT	EXCEEDENCE
April 2012	001-A	Total Oil & Grease	Maximum, Daily	100.0 mg/l	114.0 mg/l
REASON: ☐ **Equipment Related** ☐ **Operator Error** ☒ **Unknown** ☐ **None provided** ☐ **Other**					
REASON: Unknown.					

MONTH/YEAR	DSN	PARAMETER	TYPE OF LIMIT	PERMITTED LIMIT	EXCEEDENCE
June 2012	001-A	Total Oil & Grease	Maximum, Daily	100.0 mg/l	133.0 mg/l
REASON: ☐ **Equipment Related** ☐ **Operator Error** ☒ **Unknown** ☐ **None provided** ☐ **Other**					
REASON: Unknown.					

MONTH/YEAR	DSN	PARAMETER	TYPE OF LIMIT	PERMITTED LIMIT	EXCEEDENCE
June 2012	001-A	Biochemical Oxygen Demand (5-Day)	Maximum, Daily	16,900.0 lb/d	22,551.0 lb/d
REASON: ☐ **Equipment Related** ☐ **Operator Error** ☒ **Unknown** ☐ **None provided** ☐ **Other**					
REASON: Unknown.					

MONTH/YEAR	DSN	PARAMETER	TYPE OF LIMIT	PERMITTED LIMIT	EXCEEDENCE
December 2013	001-1	pH	Minimum Instantaneous	5.0 S.U.	2.6 S.U.
REASON: ☒ **Equipment Related** ☐ **Operator Error** ☐ **Unknown** ☐ **None provided** ☐ **Other**					
REASON: Combination of low flow and probe placement in the discharge pipe.					

MONTH/YEAR	DSN	PARAMETER	TYPE OF LIMIT	PERMITTED LIMIT	EXCEEDENCE
December 2013	001-A	pH	Maximum Instantaneous	11.0 S.U.	12.2 S.U.
REASON: ☐ **Equipment Related** ☐ **Operator Error** ☒ **Unknown** ☐ **None provided** ☐ **Other**					
REASON: Unknown.					

MONTH/YEAR	DSN	PARAMETER	TYPE OF LIMIT	PERMITTED LIMIT	EXCEEDENCE
January 2014	001-A	pH	Maximum Instantaneous	11.0 S.U.	11.6 S.U.
REASON: ☐ **Equipment Related** ☐ **Operator Error** ☐ **Unknown** ☒ **None provided** ☐ **Other**					
REASON: None provided.					

MONTH/YEAR	DSN	PARAMETER	TYPE OF LIMIT	PERMITTED LIMIT	EXCEEDENCE
February 2014	001-A	pH	Maximum Instantaneous	11.0 S.U.	11.5 S.U.
REASON: ☐ **Equipment Related** ☐ **Operator Error** ☐ **Unknown** ☒ **None provided** ☐ **Other**					
REASON: None provided.					

MONTH/YEAR	DSN	PARAMETER	TYPE OF LIMIT	PERMITTED LIMIT	EXCEEDENCE
February 2014	001-A	Total Oil & Grease	Maximum Daily	100 mg/l	113 mg/l
REASON: ☐ **Equipment Related** ☐ **Operator Error** ☐ **Unknown** ☒ **None provided** ☐ **Other**					
REASON: None provided.					

MONTH/YEAR	DSN	PARAMETER	TYPE OF LIMIT	PERMITTED LIMIT	EXCEEDENCE
March 2014	001-A	pH	Minimum Instantaneous	5.0 S.U.	4.7 S.U.
REASON: ☐ **Equipment Related** ☐ **Operator Error** ☐ **Unknown** ☒ **None provided** ☐ **Other**					
REASON: None provided.					

MONTH/YEAR	DSN	PARAMETER	TYPE OF LIMIT	PERMITTED LIMIT	EXCEEDENCE
September 2014	001-A	pH	Maximum Instantaneous	11.0 S.U.	12.0 S.U.
REASON: ☐ **Equipment Related** ☐ **Operator Error** ☐ **Unknown** ☒ **None provided** ☐ **Other**					

REASON: None provided.

MONTH/YEAR	DSN	PARAMETER	TYPE OF LIMIT	PERMITTED LIMIT	EXCEEDENCE
December 2014	001-A	pH	Maximum Instantaneous	11.0 S.U.	11.2 S.U.
REASON: ☐ Equipment Related ☐ Operator Error ☐ Unknown ☒ None provided ☐ Other					
REASON: None provided.					

MONTH/YEAR	DSN	PARAMETER	TYPE OF LIMIT	PERMITTED LIMIT	EXCEEDENCE
January 2015	001-1	pH	Maximum Instantaneous	11.0 S.U.	11.4 S.U.
REASON: ☐ Equipment Related ☐ Operator Error ☐ Unknown ☒ None provided ☐ Other					
REASON: None provided.					

Modifications

Within the last five years, have there been any permit modifications? ☐ Yes ☑ No
If yes, provide the date(s) of the modification(s) as well as a brief explanation of what was modified.

Other

During a site visit, conducted on June 26, 2014, FRITO-LAY requested to have the ability to monitor the discharge of process wastewaters (as described in section I above) only, prior to them mixing with domestic sewage, truck washing wastewater and boiler feed water softener regeneration wastewater (covered under the General Permit for the Domestic Sewage, General Permit for the Discharge of Vehicle Maintenance Wastewater and General Permit for the Discharge of Water Treatment Wastewater, respectively). Department staff evaluated the request and determined that FRITO-LAY has the ability to monitor and sample process and other wastewaters at the final effluent flume before these wastewaters comingle with other wastewaters that are covered under General Permits. Therefore, DSN 001-A from the previous permit is now DSN 001-1. DSN 001-A is an internal monitoring location for the effluent from the oily waste clarifier.

IV. THE ON-SITE WASTEWATER TREATMENT SYSTEM

FRITO-LAY's treatment plant is designed to remove solids and oil from the wastewater before discharging the wastewater to the Killingly POTW. The treatment plant consists of the following processes: primary screening, oil/water separation, clarification, pH adjustment and solids dewatering. The waste streams are segregated into solids-laden and oil-laden wastewater. Each wastewater stream is directed to a separate, dedicated sump (i.e., corn, potato and oily wastewaters). The potato and corn sumps can be hydraulically linked by opening a gate valve in the wall between the sumps. The oily wastewater sump is not normally connected to the other two sumps.

The solids-laden wastewater (combination of corn and potato products wastewaters) is transferred to the rotary screens where it is screened to remove bulk solids, which are settled by gravity. There is one rotary screen for the potato wastewater and one rotary screen for the corn wastewater. The rotary screens operate continuously and remove solids down to a 0.030-inch diameter. The screens prevent fouling of pipelines and pumps in the treatment plant with peels and other debris. The solids from the rotary screens and the sludge from the clarifiers are stored in two blend tanks, small blend tank (T-401) and large blend tank (T-402).

The small blend tank (T-401) is used to hold solids removed by the rotary screens. This tank also receives the settled solids from the clarifiers. The large blend tank (T-402) is a holding tank for solids removed by the centrifuge (see below) and also receives sludge from the small blend tank (T-401). The small blend tank recirculation pump (PU-402A) transfers the sludge from the small blend tank to the large blend tank when the level in the small blend tank reaches a high setpoint. Wastes in the two blend tanks are mixed continuously by the chopper-style recirculation pumps (PU-402A and PU-402B) to prevent solids accumulation in the tanks.

The blended solids are dewatered using a centrifuge. The solids are shipped offsite as animal feed while the wastewater is pumped back to either the potato or corn sumps. FRITO-LAY also has a belt filter press that is used as a back-up or redundant system to the centrifuge for the dewatering of solids.

Effluent from the rotary screens flows to the stainless steel, mixed waste clarifier (CL-301) where solids settle to the cone bottom and are then removed and pumped to the small blend tank (T-401) while the supernatant gravity drains to the pH adjustment tanks. The scum and oil that is skimmed from the surface of the clarifier drain to the oily wastewater sump (T-101).

The old mixed waste clarifier (T-108) serves as a backup to the stainless steel clarifier (CL-301) when the CL-301 clarifier is off-line due to maintenance or mechanical issues. As with the CL-301 clarifier, the solids in the T-108 clarifier settle to the sloped bottom and are pumped to the small blend tank (T-401), the floating scum and oil drains to the oily wastewater sump (T-101) and the clarified water discharges to the pH adjustment tanks.

The oil-laden wastewater from the oily wastewater sump (T-101) is sent to the oily wastewater clarifier (T-106) where oil and grease is skimmed from the surface. The typical residence time of 1 to 2 days allows the oil and grease to separate from the wastewater and float to the surface of the clarifier. The oil and grease is trapped in the clarifier by a baffle that prevents it from being discharged. The accumulated oil and grease is then removed by a skimmer which pushes the floating material to a decanter and finally to the oil/grease disposal bins. The supernatant from the decanter is pumped back to the oily wastewater sump (T-101). The oily wastewater clarifier (T-106) also provides for the removal of settled solids as needed. Solids from the T-106 clarifier are pumped to the T-401 small blend tank.

FRITO-LAY also has an auxiliary clarifier (T-107) that receives wastewater from the oily wastewater sump (T-101) if the pH is greater than 11.0 S.U. The pH typically exceeds 11.0 S.U. when the oily wastewater sump (T-101) receives caustic boilout wastewater generated during the cleaning of process tanks. The discharge pipeline from the oily sump is monitored for pH. If the pH should exceed 11.0 S.U., an actuated valve will direct the wastewater to the T-107 clarifier where the water will be held until the pH drops. The T-107 clarifier either overflows to the T-106 clarifier through an interconnected pipe or is drained back to the oily sump by gravity where the wastewater is then pumped to T-106 with other oily sump contents.

The supernatant from the oily clarifier combines with the supernatant from the mixed waste clarifier and the mixed wastewater is pH adjusted in two (2) tanks before being discharged to the POTW. The adjustment is a two-stage process. Bulk adjustment of 2 to 3 pH units is performed in the rough pH adjustment tank (T-1) with overflow being directed to the fine pH adjustment tank (T-2). Both pH adjustment tanks adjust the pH into the 6 to 9 S.U. range with sodium hydroxide to raise the pH or sulfuric acid to lower the pH. The wastewater gravity drains from the pH adjustment tanks to the surge manhole. If the pH at the treatment system effluent flume is out of spec, a set of actuated valves will redirect the wastewater to the emergency basin where the wastewater can be held and further treated to adjust the pH. If the pH at the treatment system effluent flume is within permit limits, the wastewater gravity drains from the surge manhole through a 15-inch Palmer-Bowlus flume to the sanitary sewer.

V. SPILL HISTORY

There have been no spills at the facility within the last five years.

VI. EFFLUENT GUIDELINES

FRITO-LAY is primarily engaged in the manufacturing of potato chips, corn chips and similar snacks. Presently, there are no pretreatment standards for this specific industrial category beyond those outlined in 40 CFR Part 403 (General Pretreatment Regulations for Existing and New Sources of Pollution). Department staff used a case-by-case determination, using best professional judgment ("BPJ") and review of its file information and 40 CFR Part 403 (General Pretreatment Regulations for Existing and New Sources of Pollution) to develop FRITO-LAY's permit effluent limits and monitoring requirements.

VII. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

BASIS FOR LIMITS, STANDARDS OR CONDITIONS		REGULATION (If Applicable)	DISCHARGE POINT(S)
☒	Federal Effluent Limitation Guideline (ELG)	40 CFR Part 403	DSN 001-1, DSN 001-A
☐	Pretreatment Standards for Existing Sources (PSES)		
☐	Pretreatment Standards for New Sources (PSNS)		
☐	Performance Standards		
☐	Section 22a-430-4(s) of the Regulations of Connecticut State Agencies		
☒	Case-by-Case Determination using Best Professional Judgment ("BPJ")		DSN 001-1, DSN 001-A
☒	Other (i.e. Department File Information)	Department File Information on Killingly POTW	DSN 001-1, DSN 001-A

A. MONITORING PARAMETERS & LIMITS:

The Department made a case-by-case Determination using BPJ to require FRITO-LAY to monitor for total oil and grease, linoleic acid and oleic acid at the transfer pump after the oily waste clarifier (DSN 001-A). In addition, the Department reviewed departmental file information on Killingly POTW and FRITO-LAY's historical foaming issues and incorporated the following parameters to be monitored for at DSN 001-1: linoleic acid, oleic acid, surfactants (MBAS). Surfactants (MBAS), as well as linoleic and oleic acids, have been found to contribute to foaming of wastewater. Since these parameters are presently found in FRITO-LAY's wastewater, the company is now being required to monitor for them at its effluent. Occasion

DSN 001-1

PARAMETER	BPJ		
	Average Monthly	Maximum Daily	Instantaneous
Ammonia (as N) (mg/l)[1,2]			
Biochemical Oxygen Demand 5-Day (lb/day)	13,000[1]	16,900[1]	
Dissolved Solids, Total (mg/l)[1,2]			
Linoleic Acid (mg/l)[2,4]			
Nitrates (mg/l)[1,2]			
Nitrites (mg/l)[1,2]			
Oil and Grease, Total (mg/l)	100.0[1]	100.0[1]	150.0[1]
Oil and Grease, Total (lb/day)[4]	300.0[4]	600.0[4]	
Oleic Acid (mg/l)[2,4]			
pH			5.0 – 11.0 S.U.[1]
Phosphorus, Total (mg/l)[2,4]			
Surfactants (MBAS) (mg/l)[2,4]			
Suspended Solids, Total (lb/day)	6,000.0[1]	6,500.0[1]	
Temperature			95°F[1]
Zinc, Total (mg/l)		1.5[3]	1.5[1]

Table Footnotes:
[1] Retained from the 2004 permit
[2] No limits – monitoring only
[3] Changed from the 2004 permit
[4] Not included in the 2004 permit

DSN 001-A

PARAMETER	BPJ		
	Average Monthly (mg/L)	Maximum Daily (mg/L)	Instantaneous (mg/L)
Linoleic Acid[2,4]			
Oleic Acid[2,4]			
Oil and Grease, Total[2,4]			

Table Footnotes:
[2] No limits – monitoring only
[4] Not included in the 2004 permit

Comments on specific parameters:

- The pH limits of 5.0 to 11.0 S.U. from the previous permit will be retained. These limits are considered to be protective of sanitary sewer systems.

- The instantaneous temperature limit of 95°F from the previous permit will be retained. The limit was set at 95°F to ensure that the temperature at the headworks of the Town of Killingly POTW will not exceed 104°F. FRITO-LAY has demonstrated the ability to comply with this instantaneous temperature limit.

- The average monthly and maximum daily mass effluent limits for total suspended solids ("TSS") and biochemical oxygen demand (5-day) ("BOD_5") from the 2004 permit will be retained. FRITO-LAY and the Town of Killingly have a negotiated agreement that allows FRITO-LAY to discharge a maximum daily flow of 1,600,000 gpd of pretreated food processing and related wastewaters to the Town of Killingly POTW. The TSS and BOD_5 mass effluent limits were based on this maximum daily flow.

- In November 2007, pursuant to Section 7(C) of the 2004 permit, FRITO-LAY submitted to the Department an evaluation report which summarized the company's assessment of its wastewater and the wastewater's impact on the Killingly POTW. FRITO-LAY was also required to propose instantaneous maximum limits for BOD_5 and TSS which would be protective of the Killingly POTW. The company proposed that the maximum daily limits for BOD_5 and TSS be increased by twenty-five percent (25%) to establish the maximum instantaneous limits for the two parameters. The report and supplemental documentation was approved by the Department on May 9, 2008.

  The Department has further evaluated the need for maximum instantaneous limits for BOD_5 and TSS and determined that retaining the average monthly and maximum daily mass effluent limits for TSS and BOD_5 from the 2004 permit is protective of the Killingly POTW. Therefore, the Department decided to forgo including maximum instantaneous limits for BOD_5 and TSS during this permit reissuance cycle.

  The Department is requiring that FRITO-LAY collect daily composite samples on a weekly basis for BOD_5 and TSS analyses. The 2004 permit required FRITO-LAY to report grab sample averages in lieu of the analyses for BOD_5 and TSS in one daily composite sample every other week each month to better define the BOD_5 and TSS effluent variability. This provision was to continue until the permit expired or was modified by the Commissioner. The Department determined that requiring FRITO-LAY to collect weekly daily composite samples is protective of the Killingly POTW. As such, the above-noted monitoring provision from the 2004 permit has not been retained.

- Monitoring requirements for ammonia (as N), nitrates, nitrites, total phosphorus and total dissolved solids from the 2004 permit will be retained. Monitoring for the above-mentioned parameters will allow the Department to identify pollutant loadings to the Town of Killingly POTW. In addition, due to FRITO-LAY's historical foaming issues downstream of the effluent discharge point, the Department is requiring that the company monitor DSN001-1 for linoleic and oleic acids.

- Monitoring requirements and concentration limits for total oil and grease from the previous permit will be retained. In addition, the Department incorporated average monthly and maximum daily mass effluent limits for total oil and grease. This is due to the fact that FRITO-LAY's flows are highly variable, depending on production demands. Thus, having mass effluent limits will be more protective of the Town of Killingly POTW.

- Internal monitoring requirements for total oil and grease, linoleic acid and oleic acid at DSN 001-A are being incorporated in this permit. This internal monitoring is required to assess the effectiveness of the oily waste clarifier, associated with DSN 001-A.

- Monitoring for surfactants (MBAS) will be required under this permit. A review of FRITO-LAY's permit renewal application and supporting analytical results revealed that surfactants were detected at a concentration of 0.29 mg/l. In addition, the Town of Killingly POTW has requested that FRITO-LAY be required to monitor for surfactants. Department staff is recommending

monthly monitoring for surfactants in this permit renewal. Analysis for surfactants will have to be performed on a daily composite sample collected after a process tank clean-out takes place at the facility.

- Monitoring requirements and the maximum instantaneous limit for total zinc (1.5 mg/l) from the 2004 permit will be retained. The Department also included a maximum daily limit of 1.5 mg/l to be protective of the Town of Killingly POTW. Zinc limits have been included because FRITO-LAY uses zinc orthophosphate for corrosion control in its water system.

- FRITO-LAY shall continue to collect all silver nitrate waste from its quality control laboratory activities and ship the waste to a permitted disposal facility, using a licensed hauler.

B. MONITORING FREQUENCY:

The *Monitoring Schedule* set forth in section 22a-430-3 of the RCSA prescribes a minimum frequency of monitoring, based on the category and the permitted average daily flow (in gallons per day ("gpd")). Since FRITO-LAY's permitted average daily flow, for DSN 001-1, is 1,400,000 gpd and the wastewaters are generated from manufacturing of miscellaneous food products, the Department determined that the discharge falls in the "z" subcategory (>50,000 gpd) of the "Miscellaneous Food Products" category of discharge. Therefore, the parameters that are expected to be found in salty food manufacturing process wastewaters will be monitored weekly. These parameters are: biochemical oxygen demand (5-day), linoleic acid, total oil and grease, oleic acid, and total suspended solids. Monitoring frequencies for ammonia (as N), nitrates, nitrites, total phosphorus, surfactants (MBAS), total dissolved solids, and total zinc have been determined on a case-by-case basis using BPJ.

VIII. MISCELLANEOUS

FRITO-LAY is subject to the terms and conditions of the following general permits:

- General Permit for the Discharge of Stormwater Associated with Industrial Activity (GSI000824)
- General Permit for the Discharge of Minor Non-contact Cooling Water (GCW000195)
- General Permit for the Discharge of Vehicle Maintenance Wastewater (GVM00317)
- General Permit for the Discharge of Water Treatment Wastewater (GWT000097)
- General Permit for the Discharge of Domestic Sewage

FRITO-LAY is subject to special conditions included in Sections 4(D), 4(E) and 4(F) of the permit.

- Section 4(D) states that FRITO-LAY shall clean out its process equipment to remove oil residues before washing the equipment, and collect all spent vegetable oils used for the frying and cooking and dispose of these materials through a licensed hauler in a manner acceptable to the Commissioner.

- Section 4(E) states that FRITO-LAY shall properly operate and maintain all starch recovery systems at all times. The Department considers the starch recovery systems part of the wastewater treatment system.

- Section 4(F) states that FRITO-LAY shall collect all silver nitrate waste from its quality control laboratory activities and ship the waste to a permitted disposal facility, using a licensed hauler.

IX. SITE & RESOURCE INFORMATION

A. INDIAN LAND

Based on the information in the permit application, the site is not located on federally-recognized Indian land.

B. COASTAL BOUNDARY

The subject site is not located within the coastal boundary as delineated on Department approved coastal boundary maps.

C. ENDANGERED OR THREATENED SPECIES

The subject site is located within an area identified as a habitat for endangered, threatened or special concern species (July 2002 map). However, in a letter dated February 6, 2003, the Wildlife Division of the Bureau of Natural Resources made a determination that there are no known extant populations of federal or state endangered, threatened or special concern species that occur at the site in question.

D. AQUIFER PROTECTION AREAS

The subject site is located within a town that is required to establish Aquifer Protection Areas. However, the site is not located in an initial setback area or recharge area as identified in a Level B map.

E. CONSERVATION OR PRESERVATION RESTRICTION

When the application for renewal was submitted in 2009, this information was not required.

F. MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

The application includes stormwater discharges to a MS4.

G. PUBLIC WATER SUPPLY WATERSHED

When the application for renewal was submitted in 2009, this information was not required.

X. COMMENTS RELATED TO THE PUBLIC NOTICE

Notice of Tentative Decision was published in ____ on ____. The comment period ended on _____. The Department has received [no] [the following] written comments on the proposed action: Pick the one that applies.

Comments If Any

The Water Permitting and Enforcement Division staff has reviewed the written comments and does not feel that the tentative determination should be modified. Provide Reasons

The Water Permitting and Enforcement Division staff has reviewed the written comments and recommends the following changes in the [tentative determination] [draft permit]. Pick the one that applies.

(NOTE: Staff needs to ensure that the language in this section matches what is in the Final Determination Memo)